In the Claims

1.   (Previously Presented)

2.   (Cancelled)

3.   (Previously Presented) A Ca-containing rust-resistant steel comprising Ca at a concentration of 0.0005 wt% or more, wherein the composition of oxide inclusions and sulfur concentration in said steel are controlled so that the equilibrium sulfur soluble amount (%S inc.) value of at least 80% of CaO-containing oxide inclusions having a particle diameter of 2 μm or larger is about 0.03 wt% or less, wherein said equilibrium sulfur soluble amount (%S inc.) value is determined in accordance with the following equation (1), including as its parameters the optical basicity calculated from the composition of said oxide inclusions, the casting temperature and the components forming the steel, such equation being

log (%S inc.) = (21920 - 54640Λ)/T + 43.6Λ - 23.9 - log [aO] + log [wt% S], ...(1)

wherein

T represents the casting temperature (K) during the continuous casting process,

[wt% S] represents the concentration of S contained in said steel,

[aO] represents the oxygen activity of said molten steel at said casting temperature (T) during a continuous casting process, and

wherein during Al-deoxidation,

log aO = (-64000/T + 20.57 - 2log[wt% Al] - 0.086 [wt% Al] - 0.102 [wt% Si]) /3, and

wherein during Ti-deoxidation,

log aO = (-60709/T + 20.97 – 2log[wt% Ti] - 0.084 [wt% Ti]) /3,

and provided that, when Al and Ti are present in said steel, a smaller aO oxygen activity is provided,

wherein Λ represents the optical basicity of oxide inclusions according to equation (2)

$$\Lambda = 1.0 \times (CaO) + 0.605 \times (Al_2O_3) + 0.601 \times (TiO_2) + 0.78 \times (MgO) + 0.48 \times (SiO_2) + 0.55 \times (Cr_2O_3) + 0.59 \times (MnO) \qquad \ldots (2)$$

and wherein

X (MmOn) represents the cation equivalent of the oxide present, according to the following equation (3):

$$X (MmOn) = n \times N (MmOn) / \Sigma (n \times N (MmOn)), \qquad \ldots(3)$$

wherein

N (MmOn) represents the mol fraction of oxide present and

n represents the valence of oxygen contained in said oxide.

4. (Original) A method for manufacturing a Ca-containing rust-resistant steel, said steel containing Ca at a concentration of about 5 ppm or more, comprising performing a refining process for refining said steel, wherein the composition of inclusions and the S concentration of steel are so controlled that the equilibrium S soluble amount (%S inc.) of CaO-containing oxide inclusions present in said Ca-containing Steel is about 0.03 wt% or less.

5. (New) The Ca-containing rust-resistant steel according to Claim 1, wherein the amount of Ca is 0.0015 to 0.0040 wt%.

6. (New) The Ca-containing rust-resistant steel according to Claim 1, wherein the amount of S is 0.010 to 0.020 wt%.

7. (New) The Ca-containing rust-resistant steel according to Claim 3, wherein the amount of Ca is 0.0015 to 0.0040 wt%.

8. (New) The Ca-containing rust-resistant steel according to Claim 3, wherein the amount of S is 0.010 to 0.020 wt%.